



CLIMATE AND ENVIRONMENTAL PROTECTION PROGRAMME

2030



CHALLENGE AND OPPORTUNITY AT THE SAME TIME – OUR PATH TO CO₂ NEUTRALITY

ASFINAG is one of Europe's leading road infrastructure providers in many areas. We consider and embody this pioneering role in everything we do; it is our declared goal to fulfil our social responsibility and act sustainably. In doing so, we face major challenges, such as the increasingly visible effects of climate change and the associated social developments. At the same time, however, it is important to provide our customers with sustainable mobility.

Measures ranging from renewable energies in energy management to the active promotion of biodiversity are part of this sustainability strategy, which is an essential framework condition for all of ASFINAG's considerations. In a "Climate Protection System Approach", we have defined five fields of action in which we implement focal points of the core strategy "sustainability, greening and climate protection". However, it is important for us to emphasise that climate and environmental protection are considered, embodied and implemented in all areas of ASFINAG's activities.

We are aware that the goals set are not always in harmony with the areas of responsibility of a motorway operator. However, we see this as an opportunity and a challenge and not as an obstacle to our commitment. We all bear responsibility for the world of tomorrow. We are already starting to do our part today – on the way to achieving CO₂ neutrality by 2030.

Mag. Hartwig Hufnagl and Dr Josef Fiala
Members from ASFINAG's Board of Directors



Overview ASFINAG Strategy 2030+

From builder, operator and tolling company to future-oriented mobility partner. This is ASFINAG's goal for the coming years. The "Strategy 2030+" developed for this purpose is intended to position ASFINAG as a reliable, innovative and sustainable partner both for its customers and for the Austrian mobility system as a whole.

| ASFINAG VISION 2030

"We connect regions and people in the heart of Europe as a reliable, innovative and sustainable mobility partner."

| ASFINAG MISSION

Together with our partners, we enable mobility for generations. With forward-looking, sustainable and innovative solutions, we are part of the mobility turnaround in Austria.

- 📍 We invest in the quality of our network and develop it ecologically and economically in the sense of the overall Austrian mobility system.
- 📍 As a competent road operator, we offer our customers safe and efficient motorways and expressways.
- 📍 With our modern toll products and digital information services, we are a customer-focused service provider.



ASFINAG CORE STRATEGIES

Based on the Vision 2030, core strategies are developed for ASFINAG's core business areas to ensure that the vision is achieved. All core strategies are defined by a guiding principle that is in line with the vision, are subdivided into several fields of action and are backed by specific goals, metrics and measures. This document describes the core strategy "Sustainability, Greening and Climate Protection". In addition to the nine core strategies, eight area strategies are being developed in order to align all activities with the "Strategy 2030+".



Road traffic safety



Service and control



Availability



SUSTAINABILITY,
GREENING AND
CLIMATE PROTECTION



Multimodality,
parking, services



ITS¹



International and
collaborations



Innovations



Construction and
maintenance

¹ Intelligent Transport System

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MOTIVATION AND BACKGROUND



MOTIVATION AND BACKGROUND

SUSTAINABLE MOBILITY – ASFINAG TAKES RESPONSIBILITY

WHAT IS OUR MOTIVATION?

The Paris Agreement on climate protection, which came into force on 4 November 2016 and was adopted by 190 countries, has the long-term goal of limiting the increase in the average global temperature to well below 2°C compared to pre-industrial levels. To achieve this, it is necessary to reduce net greenhouse gas emissions in the EU by at least 55 percent by 2030 compared to 1990 levels.

In order to shape EU policies in the areas of climate, energy, land use, transport and taxation in such a way that the targets are achieved, the European Commission presented the Fit for 55 package in July 2021. This contains the necessary legal instruments for achieving the goals agreed in the European Climate Act.

Austria has already set itself the goal of becoming climate-neutral by 2040. With the climate and energy strategy #mission2030, the integrated national energy and climate plan (NEKP) for Austria and the mobility master plan 2030, strong signals for decarbonisation and climate change mitigation have been fixed.

At almost 50%, transport is the main source of greenhouse gas emissions in Austria. This is also where ASFINAG has to start. For ASFINAG's climate and environmental protection programme, internal and external climate and environmental experts developed targets and measures in order to be able to make valuable contributions towards the achievement of international and national climate targets.



WHAT HAVE WE DONE SO FAR? | ASFINAG'S SUSTAINABILITY REPORT

For a long time now, the long-term success and value of a company can no longer be measured purely in terms of financial indicators. Employee commitment and satisfaction, innovative strength, the consumption of natural resources and social responsibility have a significant influence on organisations and are reflected in financial indicators in the long term. Our annual sustainability report has been providing an insight into ASFINAG's non-financial topics since 2010 and was rated "Prime" by the ISS ESG rating agency for the fifth time in a row in 2021.

In our report, we provide information on our key figures, measures and targets in the following fields of action:

- Company
- Employees
- Traffic
- Environment
- Supply chain

In our sustainability core team, which consists of employees from all companies, we monitor the developments in the individual fields of action during the course of the year and develop new measures and goals for the coming year in order to comply with the Sustainable Development Goals (SDGs) in the best possible way.

The current report can be found online at sustainability-asfinag.at.



COLLABORATION

We collaborate closely with numerous institutional partners in order to promote a mutual exchange of information and know-how with a focus on sustainability. We collaborate closely with the following institutions, among others:

- 📍 The Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology (BMK), the Federal Ministry of Finance (BMF), the Federal Ministry of the Interior (BMI), the Austrian Federal Railways (ÖBB), the Service Agency for Innovation-Promoting Public Procurement (IÖB), the Federal Environment Agency, the Austrian Research Promotion Agency (FFG), the Road-Rail-Traffic Research Association (FSV), the Nature and Biodiversity Conservation Union and the WWF
- 📍 In addition, there is close coordination with stakeholders and partners: car drivers, lorry drivers, freight and passenger transport companies, the Chamber of Commerce, automobile clubs, the media, suppliers, authorities and district administrations.





CORE STRATEGY FOR "SUSTAINABILITY, GREENING AND CLIMATE PROTECTION"



CORE STRATEGY FOR SUSTAINABILITY

As an innovative and sustainable mobility partner, we see our goals as contributions towards a better society. No other topics are as important as sustainability and the measures we take as a company to achieve it.

The core strategy "Sustainability, Greening and Climate Protection" is therefore anchored as a central instrument in the Group's management. As fields of action, the topics "decarbonisation and emissions reduction on the motorway and expressway network", "ASFINAG's mobility concept", "energy strategy", "sustainable management" and "biodiversity" are increasingly in focus and comprise clear and transparent goals and measures. These efforts are to manifest themselves in particular in the implementation of construction projects in the form of a new, sustainable "building culture".

In the guiding principle and scope of the core strategy, we show the broad impact of the strategy in all areas and also posit the notion that sustainability serves more than just environmental protection. This is a central component of sustainability, but it is not everything.

Sustainability means, among other things, that future generations can develop just as freely and unhindered as the people who live in the present. This is the goal we are pursuing with our strategy.



ECOLOGISATION AND CLIMATE PROTECTION

| GUIDING PRINCIPLE

Comprehensive environmental protection, universal climate protection, audited supply chains, attractive jobs, fair business relations and satisfied customers are the key elements for a sustainable future.

| SCOPE

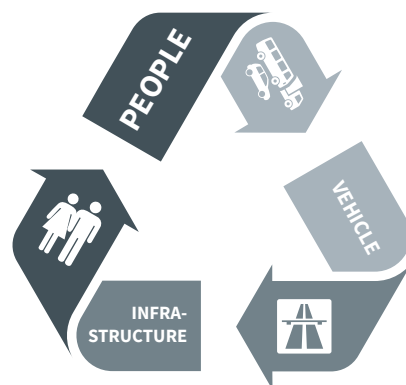
Sustainability encompasses all socio-cultural, ecological and economic resources and thus provides a guideline for all core and divisional strategies.

| FROM THE STRATEGY TO THE CLIMATE AND ENVIRONMENTAL PROTECTION PROGRAMME 2030

In a comprehensive climate and environmental protection programme, we set new priorities and specify targets that we want to achieve by 2030 and that will enable ASFINAG to make its contribution towards climate and environmental protection. The catalogue of measures derived from the goals covers numerous activities that we will carry out in the coming years and that we will regularly review for their progress and effectiveness. Due to constantly changing requirements and framework conditions, ongoing planning and adjustment of goals and measures are essential.

| OUR "CLIMATE PROTECTION SYSTEM APPROACH"

Austrian motorways and expressways as a "climate protection system" – in practice, this means that everyone pulls together to avoid environmentally harmful emissions and immissions as far as possible – infrastructure, vehicle technology and, of course, all our employees and customers.





| OUR CHALLENGE – "CORPORATE CARBON FOOTPRINT"

The effort to reduce the company-wide carbon footprint is at the beginning of the development of a holistic climate protection strategy. In core teams of experts, we have set targets for CO₂ reduction and developed measures to achieve these targets.

The starting point for climate protection measures is usually the calculation of the company's carbon footprint, the so-called "Corporate Carbon Footprint" (CCF). It provides an overview of where CO₂ emissions occur and how high they are.

According to the Greenhouse Gas Protocol, a carbon footprint is divided into three areas:

- 📍 direct emissions, e.g. the emissions of our vehicle fleet
- 📍 indirect emissions, e.g. from electricity consumption at motorway maintenance depots, tunnel facilities, etc.
- 📍 all other indirect emissions, including those resulting from the production and transport of purchased goods, the distribution and use of our own products or the disposal of waste

ASFINAG has been continuously assessing the environmental impact of its activities since 2008, with the following areas being closely examined:

- 1) Buildings (motorway maintenance depots, bases, offices, construction offices, operating technology facilities and toll stations)
- 2) Vehicles
- 3) Tunnels
- 4) Forests and green areas

In 2019, the year of the last ASFINAG-wide energy audit, we recorded total CO₂ emissions of 7,900 tonnes of CO₂ equivalent in the first two areas. Consideration of the third area is not currently available due to the large number of ASFINAG suppliers and service providers (5,043 in 2021), particularly in the construction sector.



**TOMORROW IS TODAY:
OUR PATH TO SUSTAINABILITY**





FIELDS OF ACTION



FIELDS OF ACTION

The Climate and Environmental Protection Programme 2030 is our central instrument for implementing the sustainability strategy. It contains targets and measures that make the progress of our ambitions visible.

In doing so, we are aware of the challenge that sustainability is not yet always in harmony with other important priorities of ASFINAG (such as transport availability). However, we see this as both an opportunity and a challenge and are developing new, innovative initiatives to meet the goal of sustainability and decarbonisation. For a structured development of goals and measures, the core strategy "sustainability, greening and climate protection" was divided into five fields of action. For each of these fields of action, core teams of experts from all ASFINAG companies were established, which jointly developed goals and measures necessary to achieve these goals (chart of employees involved in this programme on page 46).

The five fields of action of the core strategy "Sustainability, greening and climate protection":

- 📍 Decarbonisation and emissions reduction on the motorway and expressway network
- 📍 ASFINAG mobility concept
- 📍 Energy strategy
- 📍 Sustainable management
- 📍 Biodiversity



1. FIELD OF ACTION:

DECARBONISATION AND EMISSIONS REDUCTION ON THE MOTORWAY AND EXPRESSWAY NETWORK

WHERE WE ARE NOW

Decarbonisation is a central means of climate protection as well as one of the main pillars of the energy transition. In order to offer our customers the possibility to use our network in a more climate-friendly way, measures such as the expansion of the e-charging network and the extension of the available range of alternative fuels, such as hydrogen, are necessary.

This field of action also includes targets for CO₂ reduction through organisational measures such as speed harmonisation via ASFINAG telematics (e.g. overhead signposts and ASFINAG app).

In addition to measures and legal requirements to decarbonise the transport and infrastructure sector, noise abatement is also an essential issue for our customers. ASFINAG's goal here is to achieve constant architectural and noise-related quality improvements in the overall network through the modern and landscape-oriented design of noise barriers.

Intention	Focus areas
CO ₂ -reduced and low-noise use of the motorway and expressway network	Expansion of the network infrastructure for alternative drive types
	Changes in traffic organisation to reduce CO ₂ emissions
	Further development of the noise abatement strategy



FOCUS 1: EXPANSION OF THE NETWORK INFRASTRUCTURE FOR ALTERNATIVE DRIVES

Due to the continuously increasing use of the motorway and expressway (A&S) network, it is of great importance to offer alternatives for mobility that is currently based on fossil fuels. Numerous successful initiatives have already been launched in this regard. As of the end of 2021, 31 service stations were equipped with fast charging points with a total of 160 charging points for electrically powered cars and light commercial vehicles. By 2030, we want to equip all ASFINAG service stations with a high-power charging system. The charging stations' power of up to 350 kilowatts allows for an extremely short charging time. In addition to e-charging stations, we are also developing further in future alternative drive systems and will also promote the use of the motorway and expressway network for hydrogen-powered motor vehicles.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to offer a fast-charging station for passenger cars and light commercial vehicles every 65 kilometres on average on the A&S network by the end of 2022.

ASFINAG's goal is to establish more than 1,500 e-charging points for passenger cars and light commercial vehicles by 2030.

ASFINAG's goal is to establish a hydrogen strategy for supplying trucks for regional and international transport by 2023.

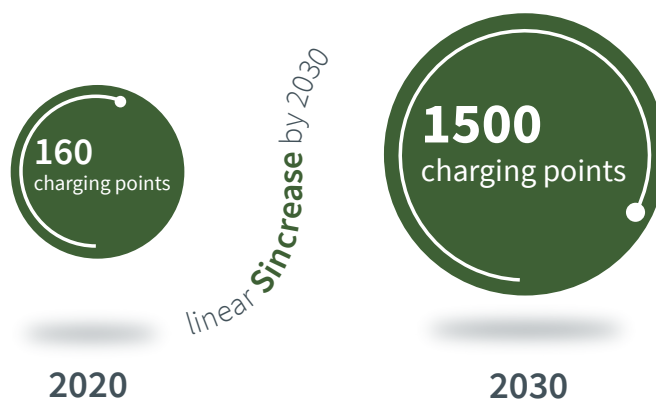
ASFINAG's goal is to derive the requirements for e-charging points for heavy-duty vehicles for local and international transports by 2023.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Survey of requirements for refuelling and charging infrastructure at service stations and rest areas on the A&S network for all alternative fuels
- 📍 Expansion of the charging and refuelling infrastructure in line with the expected increase in vehicles with alternative drives
- 📍 Implementation of the pilot project "E-charging station at an ASFINAG service station" including legal and technical framework conditions and possible roll-out on the A&S network



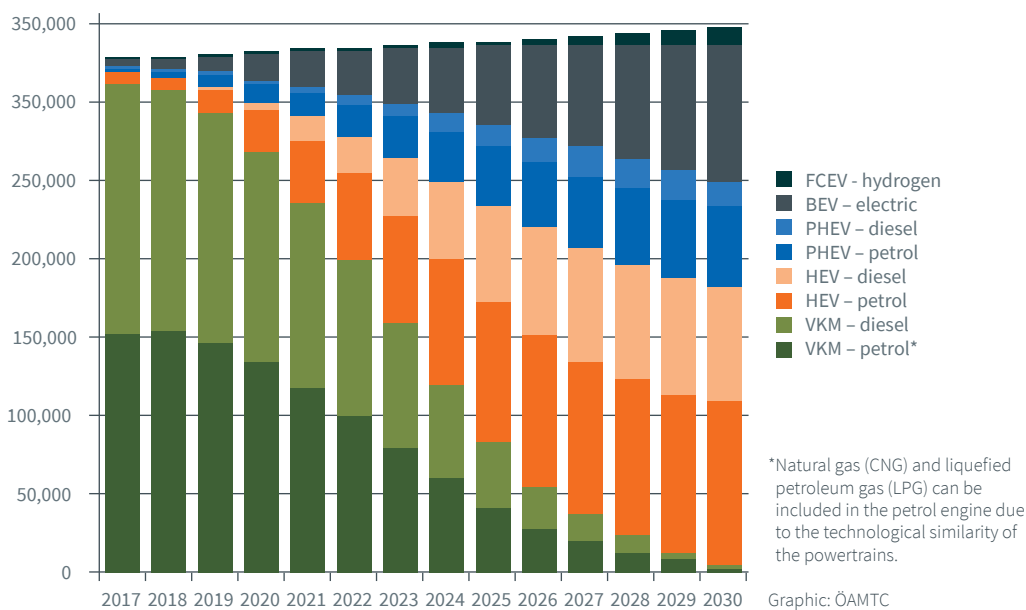
Number of charging points on motorways and expressways



FOCUS 2: CHANGES IN TRAFFIC ORGANISATION TO REDUCE CO₂ EMISSIONS

In order to actually successfully support and bring about a trend reversal and the achievement of national and international targets, it is essential to anchor and promote CO₂ reduction at all organisational levels. The interactions with other ASFINAG core strategies must be considered integratively, such as the currently existing reduced toll rates for trucks with alternative drives or ASFINAG's participation in Verkehrsauskunft Österreich (VAO). For example, VAO pursues the goal of informing all users about the optimal means of transport (motor vehicle, public transport, bicycle) for the planned route by providing up-to-date traffic information.

New registrations by drive type¹



Source: ÖAMTC: Dossier Mobility 2030, Episode 2, P. 5.

¹ The forecast was carried out before the coronavirus pandemic.



TARGETS TO BE MET BY 2030

ASFINAG MEASURES TO ACHIEVE TARGETS

ASFINAG's goal is to avoid, shift and improve traffic on the A&S network to support CO₂ reduction.

- 📍 Speed harmonisation and thus avoidance of stop-and-go traffic with the help of ASF telematics (e.g. overhead signposts)
- 📍 Continued extensive use of technical en-route control, especially in light and heavy goods traffic in collaboration with the BMI
- 📍 Analysis of possibilities for CO₂ reduction through further adjustments in toll rates
- 📍 Implementation of multimodal measures (pilot project A 10 Tauern motorway)
- 📍 Development and implementation of a guideline for multimodal road works management
- 📍 Expansion of park-and-ride facilities on the A&S network as soon as increased demand is identified
- 📍 Further development of the existing traffic control stations in order to also be able to check CO₂-relevant aspects during controls (in collaboration with the BMI)
- 📍 Analysis and implementation of possibilities to increase the occupancy rate of vehicles (pilot project Greater Linz)



| FOCUS 3: FURTHER DEVELOPMENT OF THE NOISE ABATEMENT STRATEGY

Responsible noise abatement is an important issue for ASFINAG. In a European comparison, Austria is at the top in terms of both protective measures and limit values (60 decibels during the day, 50 decibels at night along motorways and expressways). Measures taken so far consist of active noise abatement through walls, embankments or ramparts as well as passive noise abatement through appropriate doors and windows of neighbouring residents. If all of ASFINAG's noise barriers were to be put together in a row, their length would be around 1,400 kilometres.

Comparing the years 2012 and 2017, noise pollution in relation to the number of kilometres travelled has already been reduced by around nine percent through comprehensive noise abatement measures. In order to build on the successes achieved to date, ASFINAG is currently pushing ahead with numerous development and research projects in the field of noise abatement, such as noise abatement with vibroacoustic metamaterials or active noise abatement systems along the transport infrastructure.

By prioritising noise abatement measures, we want to ensure resident-focused project implementation. The chronological order of the projects is based on the continuously updated noise maps and a current overview of the inventory (age of noise barriers, etc.).

With these measures, we have already achieved a high level of protection – but we are not satisfied with that. ASFINAG is therefore committed to continuing the noise abatement measures for residents in the future and to continuously improving them in line with technical developments and the legal framework.



OPERATIONAL OBJECTIVES UP TO 2030

ASFINAG MEASURES TO ACHIEVE TARGETS

ASFINAG's goal is to provide further relief for residents affected by environmental noise along the A&S network.

- 📍 Introduction of an Austria-wide noise abatement coordination office, which has the task of coordinating the agreed objectives across society and agreeing them with the stakeholders involved
- 📍 Implementation of a priority ranking of noise abatement projects, divided into categories from A (to be implemented as soon as possible) to D (no current need for action)
- 📍 Coordination with other stakeholders from the infrastructure sector (e.g. the Austrian Federal Railways) in order to be able to guarantee consistent protection of residents
- 📍 Further development and use of innovative noise abatement measures through noise abatement development and research projects such as:
 - Visualisation of sound sources and the propagation of sound
 - Noise abatement with vibroacoustic metamaterials
 - Acoustic networking between motorway users and infrastructure (AV2X)



2. FIELD OF ACTION: ASFINAG MOBILITY CONCEPT

WHERE WE ARE NOW

In our vision, we are committed to being a sustainable and innovative mobility partner. In line with this claim, we also want to ensure that our own mobility behaviour is in harmony with our social and ecological responsibility.

This also includes questioning how we can complete our tasks with as few journeys as possible and complete the remaining ones as sustainably as possible. The mobility concept newly developed for this purpose focuses on those employee journeys that ASFINAG can directly influence, namely those from the start to the end of work. In addition, incentives are to be created for low-CO₂ forms of mobility for journeys to and from the workplace.

This means avoiding journeys, optimising journeys and switching to sustainable means of transport.

Intention

Reduction of ASFINAG's mobility-related CO₂ emissions

Focus areas

Implementation of ASFINAG's mobility concept for employees



| FOCUS 1: IMPLEMENTATION OF ASFINAG'S MOBILITY CONCEPT FOR EMPLOYEES

Approximately 80 percent of the company's CO₂ emissions are caused by our vehicle fleet. This means approximately 14,000 tonnes of the total CO₂ emissions of 17,200 tonnes from buildings, vehicle fleet and operations (source: ASFINAG Energy Audit 2019).

By avoiding journeys through digital tools, a (pool) vehicle fleet based on alternative drive systems, and the use of public transport and other alternative forms of mobility, we want to offer our approximately 2,900 employees the opportunity to travel to and from work with the lowest possible CO₂ emissions.

Not only do we want to offer our customers incentives to use alternative forms of mobility, we also want to encourage them to make the switch at work.

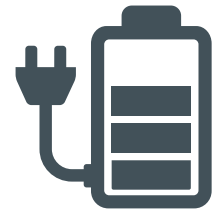
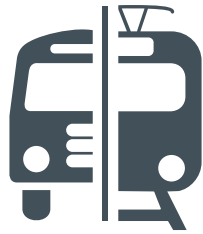
TARGETS TO BE MET BY 2030

ASFINAG's goal is to use 100 percent alternative drive types in its car fleet by 2026.

ASFINAG's goal is to reduce to zero or fully offset the carbon footprint of ASFINAG's internal meetings. In addition to travel, this also includes the use of paper or data transfer for online meetings.

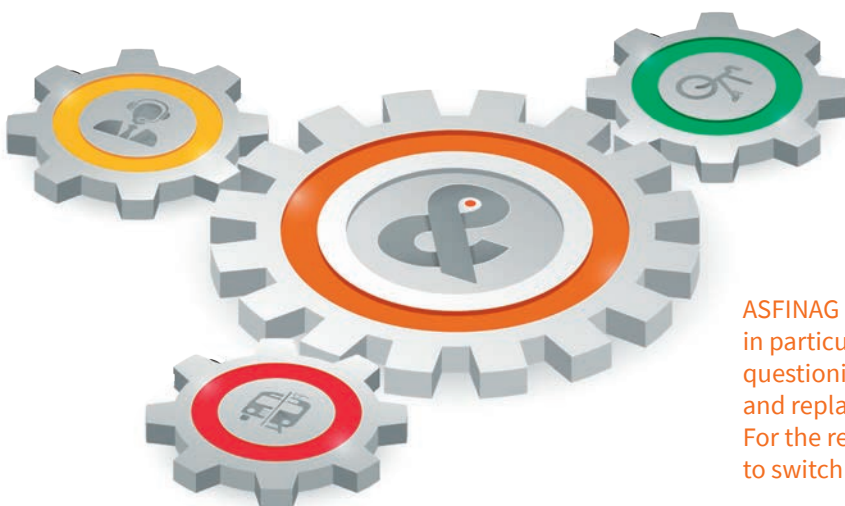
ASFINAG's goal is to reduce the mileage of ASFINAG's cars by 50 percent.

- 📍 Procurement of 100 percent electrically powered cars for the internal ASFINAG fleet since 2021



ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Implementation of a pilot project on alternatively powered light HGVs and subsequent rollout
- 📍 Implementation of a pilot project on hydrogen-powered trucks
- 📍 Expansion of charging points at e-charging stations at ASFINAG locations
- 📍 Opening of an ASFINAG short-haul vehicle fleet: (e-)bicycles, e-scooters
- 📍 Establishment of an evaluation tool to assess the CO₂ emissions saved through virtual meetings (IT)
- 📍 Official digital-first policy for meetings
- 📍 Extended regulations on working remotely
- 📍 Development and publication of a ride-sharing app
- 📍 Introduction of a business trip guideline that regulates, among other things, the choice of means of transport depending on distance
- 📍 Use of domestic flights only in crisis situations



ASFINAG is committed to sustainable and, in particular, low-CO₂ mobility. This includes questioning which journeys can be avoided and replaced by virtual meetings, for example. For the remaining journeys, the primary aim is to switch to sustainable means of transport.



3. FIELD OF ACTION: ENERGY STRATEGY

WHERE WE ARE NOW

According to the national climate and energy plan, Austria is to cover 100 percent of its electricity demand from renewable energy sources (national balance) by 2030 and to decarbonise completely by 2050. This also results in a need for action for ASFINAG.

With a total consumption of around 240 gigawatt hours (GWh)¹ per year (base year 2018), ASFINAG has an energy consumption that has been continuously increasing since 2010 due to the growth in routes and the adaptations of the tunnels in accordance with the requirements of the Road Tunnel Safety Act (STSG). However, ASFINAG has only been using electricity from renewable energy sources since 2016.

Many of ASFINAG's surfaces (tunnel gantries, roof surfaces, open spaces, noise barriers, etc.) along the A&S network and at ASFINAG locations are suitable for installing photovoltaic systems and using the generated energy directly on site. This is why we have taken the construction and operation of photovoltaic systems from the pilot stage to regular operation in 2018. As of the end of 2021, 23 photovoltaic systems on tunnel gantries, open spaces and roof surfaces as well as a small hydroelectric power plant with a total of over 3,000 kilowatt-peak were in operation. These already produce about 3,000,000 kilowatt hours of energy per year.

In addition to the construction of renewable energy plants, ASFINAG will also focus on reducing energy consumption. The potential for saving up to 20 percent of final energy consumption per kilometre is the second measure in the field of action of ASFINAG's energy strategy.

Intention	Focus areas
Electricity self-sufficiency balance by 2030	Establishment of a comprehensive ASFINAG energy management
	Reduction of primary energy consumption per kilometre
	Internal production of renewable energy

¹ The energy consumption unit gigawatt hour (GWh) corresponds to one million kilowatt hours.



FOCUS 1: ESTABLISHMENT OF AN ENERGY MANAGEMENT SYSTEM

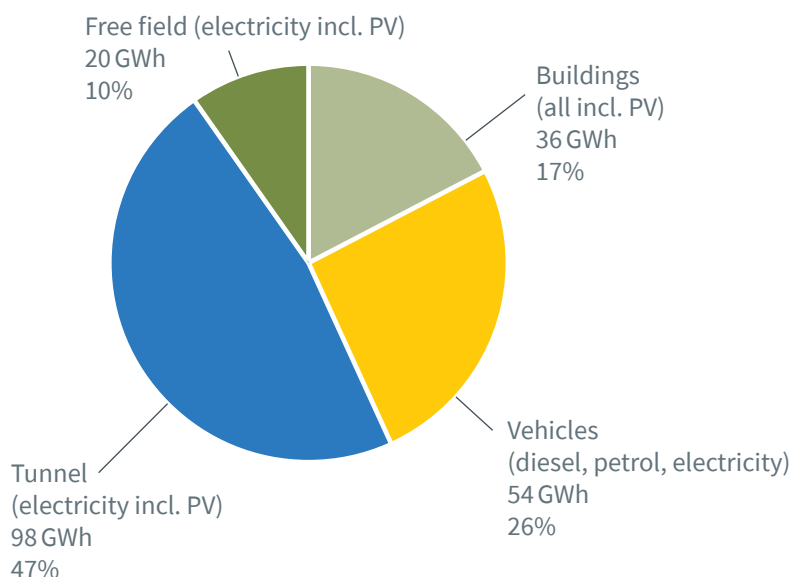
A successful energy management system must be brought together in a central office to enable the monitoring, management and coordination of energy consumption, energy storage and energy procurement, as well as the expansion and operation of self-production. The aim is to reduce energy consumption and CO₂ emissions within ASFINAG and on the A&S network, while ensuring a defined blackout resilience. Under the responsibility of energy management, the establishment of an energy management system in accordance with ISO 50001 is to take place.

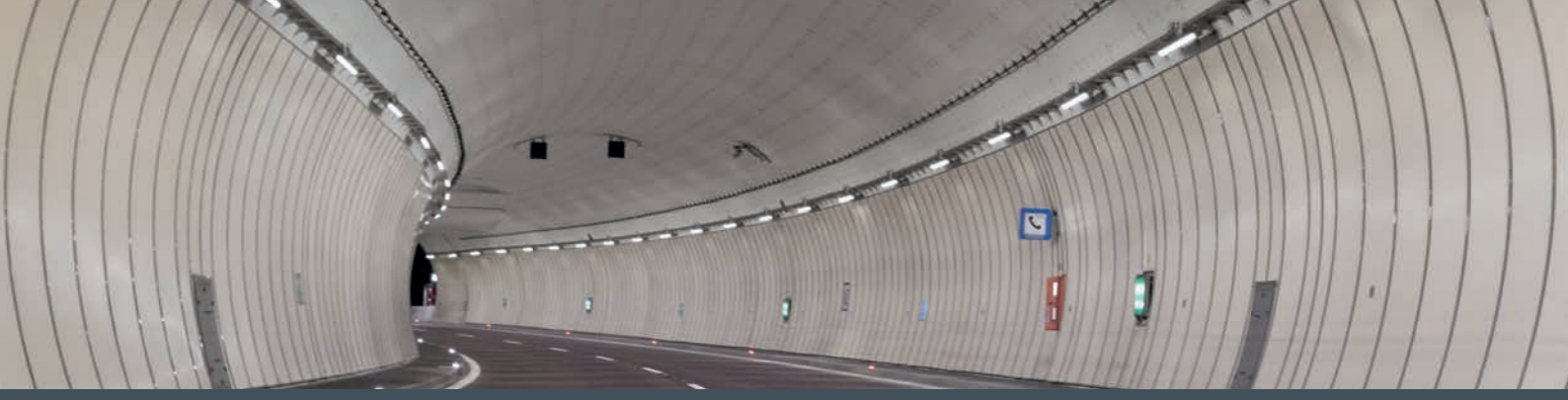
TARGETS TO BE MET BY 2030 ASFINAG's goal is to be certified according to ISO 50001 and to act in accordance with the relevant guidelines and requirements.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Organisational anchoring of an energy manager
- 📍 Development of self-sufficient ASFINAG energy regions with distribution grid infrastructure
- 📍 25 percent use of certified green electricity in accordance with guideline UZ 46 from 2021, 50 percent from 2026 and 100 percent from 2030
- 📍 Implementation of a consumption visualisation for locations and employees in order to determine the need for action to reduce energy consumption and to raise awareness among employees

Share of energy demand 2020





| FOCUS 2: REDUCTION OF PRIMARY ENERGY CONSUMPTION PER KILOMETRE

There are several factors that influence the development of energy consumption. In order to realise corresponding savings potentials in energy consumption, the efficiency classes of the buildings (renovation of high-rise buildings) and network facilities (e.g. conversion to LED lighting in tunnels) must be continuously improved.

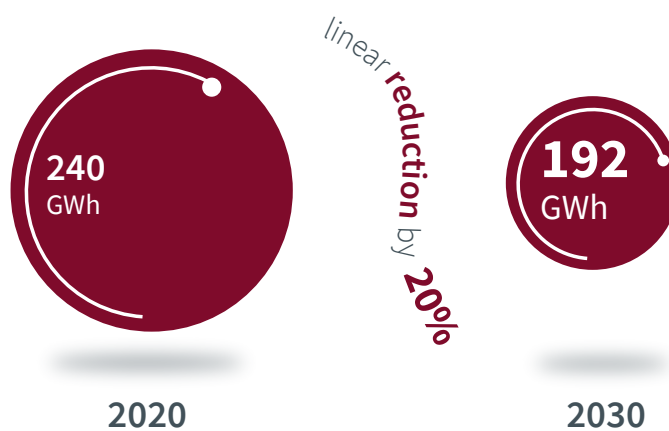
OPERATIONAL OBJECTIVES UP TO 2030

ASFINAG's target is to save 20 percent of the final energy consumption per kilometre by 2030 (minus > 45 GWh annual consumption compared to the 2018 data basis).

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Development of a conversion plan for energy systems in buildings, for instance by replacing oil heating systems and implementing thermal building refurbishment in accordance with higher efficiency classes in all motorway depots
- 📍 Continuation of the conversion of lighting in all tunnels, open spaces and buildings from conventional light sources to LEDs
- 📍 Evaluation and introduction of standards for optimising consumption in server and tunnel infrastructures, among others
- 📍 Implementation of a clear presentation of electricity consumption in real time

Reduction of energy consumption per kilometre





FOCUS 3: SELF-PRODUCTION OF RENEWABLE ENERGY

Over the next ten years, our goal is to increase existing energy production by a factor of 80. Currently, ASFINAG generates an output of about 3 megawatt peak (MWp) with its renewable energy plants – we want to increase this to 100 MWp by 2030. Energy storage technologies (e.g. battery storage) and energy communities are also to be used to achieve the target.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to be self-sufficient in electricity by 2030 by producing its own renewable energy and reducing primary energy consumption per kilometre.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Carrying out potential analyses (building construction, open spaces, noise barriers) for alternative energy production (including consideration of ecological factors, such as no expansion on valuable biodiversity areas)
- 📍 Expansion of energy plants (photovoltaics, geothermal, wind and hydropower) with a total capacity of 100 MWp by 2030
- 📍 Conception of a "solar energy" test field
- Since 2021, the pilot project "Photovoltaics on Noise Barriers" has been implemented on a test field on the S 1 Vienna Outer Ring expressway. The measure will be rolled out in accordance with the following analysis and expert recommendations.
- Implementation of a study on the D-A-CH project "Photovoltaic roofing of the motorway" including a demonstrator

Capacity of renewable energy plants





4. FIELD OF ACTION: SUSTAINABLE MANAGEMENT

WHERE WE ARE NOW

Reconciling climate and environmental protection in the construction and ongoing operation of our network begins with the goal of aligning operational practices and day-to-day business with sustainable management. This includes the further sustainable promotion of procurement and resource conservation in construction and operation, especially in terms of CO₂ savings, as well as the conservation of (drinking) water resources and the prevention of pollution along the motorway and expressway network ("Stop Littering").

ASFINAG pursues the overarching goal of largely decarbonised and resource-conserving work, planning, construction and operation.

Intention	Focus areas
Decarbonised and resource-saving work, planning, construction and operation	Sustainability criteria in procurement
	"Sustainability in construction" planning focus
	Conservation and protection of water resources along the A&S network
	Reduction of waste along the A&S network
	Material efficiency at ASFINAG locations



| FOCUS 1: SUSTAINABILITY CRITERIA IN PROCUREMENT

In recent years, ASFINAG has taken numerous steps to introduce sustainability principles into the supply chain. Social and environmental criteria shall be taken into account in determining the best bidders for all major procurement procedures in the construction sector, and suppliers with environmental certificates are preferred. In the case of standardised services, purchases are made via the Federal Procurement Company (BBG) in accordance with the Austrian Action Plan for Sustainable Public Procurement (naBe Action Plan).

TARGETS TO BE MET BY 2030

ASFINAG's goal is to establish new standards for procurement in construction projects as well as in ongoing operations by expanding the current sustainable procurement criteria.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Mandatory consideration of criteria in procurement, of which ecological sustainability criteria must be tendered in addition to social criteria
- 📍 Establishment of a catalogue of criteria for sustainability in construction and procurement
- 📍 Enforcement of sustainable procurement criteria for all bidders from bidding consortia and subcontractors
- 📍 Adaptation of the procurement guideline with regard to sustainable aspects
- 📍 Review of suppliers with regard to compliance with sustainability criteria
- 📍 Installing a tool for considering the service life and carbon footprint of materials in procurement, construction and operation



| FOCUS 2: "SUSTAINABILITY IN CONSTRUCTION" PLANNING FOCUS

Sustainable construction begins at the project planning stage, with the use of resource-conserving, durable technology and materials. Standardised resource management is the most important tool for assessing the recyclability and reusability of building materials at the end of their service life. ASFINAG is therefore committed to the expansion of resource management that takes the entire life cycle into account as early as the project planning stage.

With a recycling rate of 96 percent (in concrete and asphalt demolition in 2019), we have already laid a good foundation. In future, the increased self-use of recycled building materials in ASFINAG construction and refurbishment projects will be examined.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to reduce CO₂ emissions in construction through resource-conserving planning.

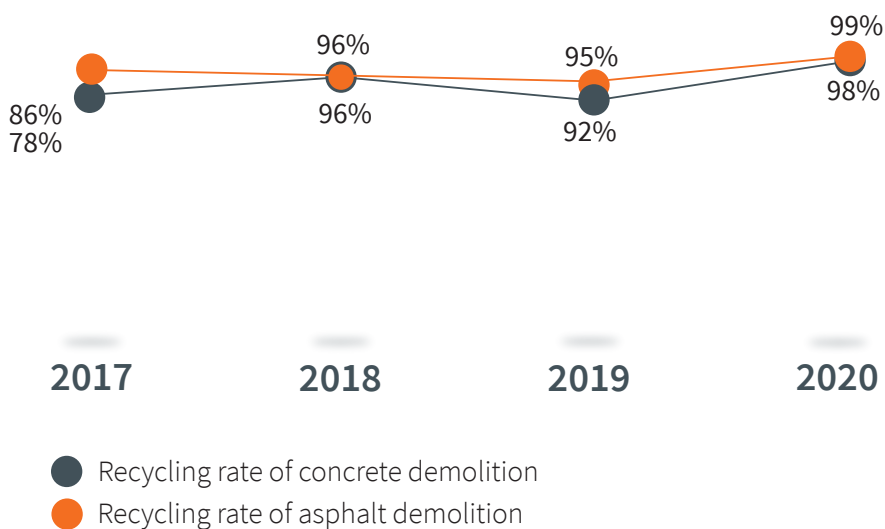
ASFINAG's goal is to maintain the recycling rate of demolition materials at the high level of more than 90 percent on average.

ASFINAG MEASURES TO ACHIEVE TARGETS

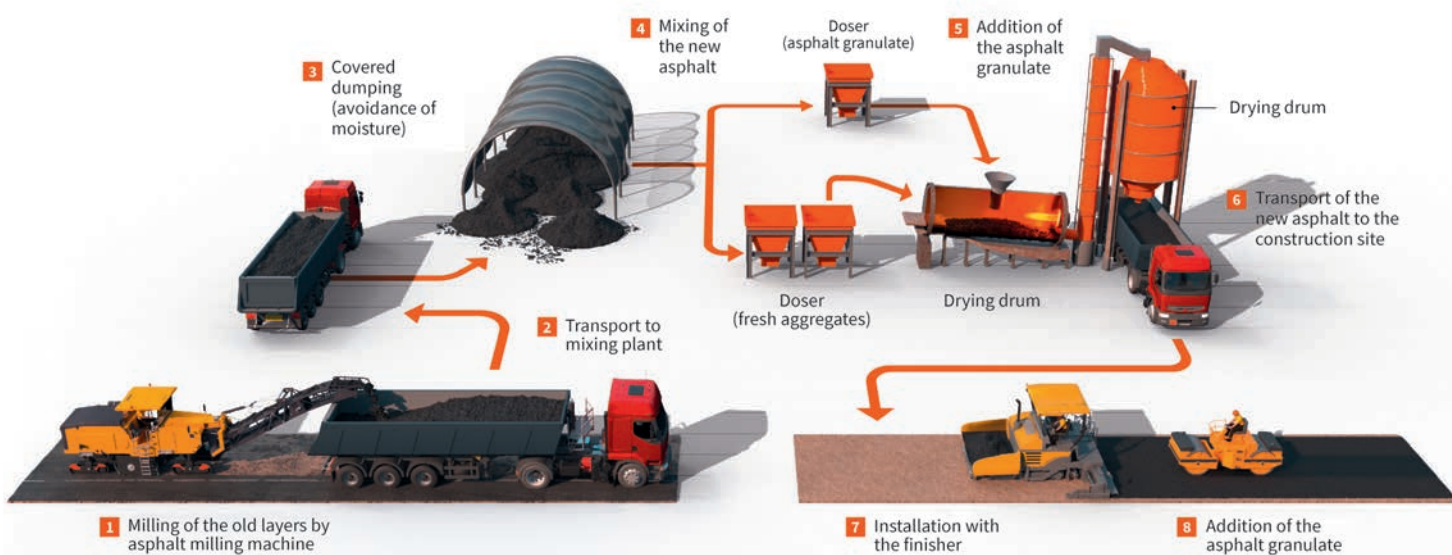
- 📍 Introduction of a CO₂ assessment of ASFINAG construction projects in order to be able to take measures to reduce CO₂ emissions within the context of these construction projects
- 📍 Establishment of a new "ASFINAG building culture" in order to comply with circular economy criteria
- 📍 Introduction of an overarching regional resource management system
- 📍 Development and implementation of a resource and spare parts database
- 📍 Use of recyclable and sustainable building materials
- 📍 Mandatory prior condition assessment for construction projects to prepare a resource plan for anticipatory planning for recycling
- 📍 Survey of waste flows and analysis of recycling in order to increase the recycling rate



Maintaining the recycling rate for demolition materials



Components recycling cycle





FOCUS 3: CONSERVATION AND PROTECTION OF WATER RESOURCES ON THE MOTORWAY AND EXPRESSWAY NETWORK

Water as a resource is a highly valuable commodity, especially in times of steadily rising temperatures and increased droughts. Parking and rest areas and tunnel cleaning are key areas where ongoing water savings can be considered by reducing the amount of potable water and increasing the amount of usable water.

There are currently around 1,000 water protection and oil separation plants in operation on the ASFINAG network, covering about half of the A&S network. In these, road wastewater is cleaned on site. This protects streams, rivers and the surface and groundwater in the area of the motorway and expressway network.

TARGETS TO BE MET BY 2030

ASFINAG's goal is a strong reduction in (drinking) water consumption.

ASFINAG's goal is to further increase the density of water protection facilities on the motorway and expressway network.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Preparation of a potential analysis of the use of industrial water within ASFINAG (e.g. at rest areas, for sewer flushing, tunnel washing) in order to evaluate ASFINAG's largest consumers and to formulate specific measures based on the results
- 📍 Increase the share of sewer flushing vehicles and tunnel washing vehicles with water recycling systems to 100 percent
- 📍 Evaluate water consumption per kilometre by equipping two motorway maintenance depots per region with smart water meters. Based on the information obtained: elaboration and implementation of further reduction measures, verification of their effectiveness and roll-out throughout Austria



FOCUS 4: REDUCTION OF WASTE ALONG THE MOTORWAY AND EXPRESSWAY NETWORK

Every year, thousands of tonnes of litter are generated along the A&S network as well as at the 56 ASFINAG rest areas and 87 ASFINAG service stations. In 2021, this amounted to a total of 7,862 tonnes of waste. The production of waste by road users who do not put their waste in the bins provided but dispose of it along the road is problematic. Carelessly discarded litter not only pollutes the environment, but also creates traffic safety hazards.

Although a reduction in waste is not within ASFINAG's sphere of influence, we see potential for further awareness-raising in this area and thus for a reduction in "incorrectly" disposed of waste.

TARGETS TO BE MET BY 2025

ASFINAG's goal is to reduce waste alongside the roads every year to protect the environment and our customers.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Implementation of several awareness raising campaigns for our customers
- 📍 Compression containers will be installed at ASFINAG service stations to encourage correct waste disposal and also reduce our CO₂ emissions by reducing the need to empty them.
- 📍 Roll-out of the "Fill up instead of throw away" campaign: At all ASFINAG service stations, our customers are offered drinking water for refilling reusable bottles.



| FOCUS 5: MATERIAL EFFICIENCY AT ASFINAG LOCATIONS

Resource consumption at the individual locations accounts for only a small proportion of ASFINAG's total CO₂ emissions, but is no less important. As a public company that wants to see sustainable management anchored in its own strategic orientation, steps that also reduce the consumption of working materials are a necessary measure. We have already taken initial measures by providing reusable insulated bottles for our employees on the roads and using environmental paper and follow-me printers in the offices. By merging the Vienna offices into one central location at the beginning of 2022, we can and will set further sustainable aspects in material efficiency.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to implement the "Vienna central location", taking into account sustainable environmental aspects.



ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Move to the central location taking into account sustainable aspects such as:
 - sustainable, regional food offer in the canteen
 - organisation of all events as "Green Events"
 - use of a bicycle workshop
 - use of sustainable cleaning agents
 - use of energy-efficient IT infrastructures
- 📍 Establishment of a resource concept for work materials (paper, water, etc.) for all ASFINAG locations
- 📍 Establishment of a training course in the ASFINAG training catalogue on the topic of resource conservation in the workplace, so that all employees can support ASFINAG in achieving its goals



5. FIELD OF ACTION: BIODIVERSITY

WHERE WE CURRENTLY STAND For ASFINAG, the following applies: well and, above all, safely constructed motorways must not conflict with nature conservation. For many years now, up to 40 percent of the total cost of a new high-ranking road link has been invested in the protection of people, animals and the environment.

Adjacent to our motorways and expressways are 33 square kilometres of lawns and meadows and another 15 square kilometres of ecological rejuvenation areas. The latter were created to compensate for road construction and to preserve native fauna and flora.

With around 51 square kilometres of wooded areas and around 22,000 individual trees, ASFINAG is one of the largest forest owners in Austria. In 2017, ASFINAG began compiling a tree cadastre and a corresponding forest management plan.

ASFINAG also fulfils its responsibility for nature conservation by building and maintaining greenland crossings. The aim is to preserve traditional animal migration routes during new construction or to reopen them on the existing network.

We currently have 50 greenland crossings on the existing network that were built purely to open up wildlife corridors. In addition, due to the geographical conditions (mountains and valleys), there are almost 1,000 further crossing possibilities with a minimum width of 15 metres due to our tunnel facilities and bridge objects. Through these objects, we achieve a permeability for flora and fauna of about 12 percent on the A&S network (this does not yet include countless small animal passages and amphibian tunnels).

Intention	Focus areas
Promotion of biodiversity	Contributions towards linking up habitats
	Promoting biodiversity
	Special promotion of flower-pollinating insects
	Raising awareness and collaboration



FOCUS 1: CONTRIBUTIONS TOWARDS LINKING UP HABITATS

In modern new construction projects, supplementary greenland crossings to preserve wildlife corridors are now standard. As of 2020, four greenland crossings have already been retrofitted on existing motorways. By 2027, we will have planned another 14 new greenland crossings. With the countless small animal and amphibian tunnels, we want to steadily increase the permeability from the current level of about 12 percent in order to reconnect further habitats.

Our employees working on the road also regularly check these greenland crossings for obstacles, such as parked vehicles or debris, so that permeability is not impaired and animals can cross undisturbed.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to achieve 100% permeability for all supraregional wildlife corridors in Austria by 2030.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Construction of 14 new greenland crossings on the existing federal road network
- 📍 Optimisation through the construction of additional plantings, deadwood and cairns on existing greenland crossings for a broad spectrum of species
- 📍 Continuation of regular monitoring of greenland crossings to ensure permeability

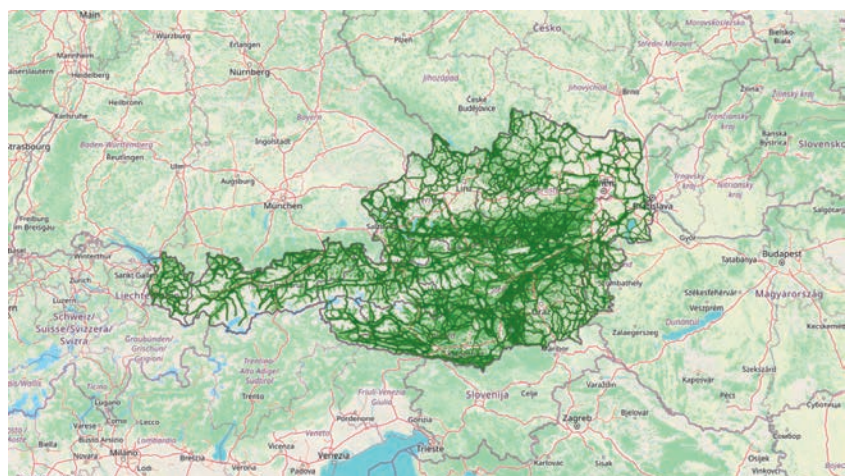


Fig. 1: Resistance model of the supra-regional wildlife corridors using the example of the section of the A 12 motorway



FOCUS 2: PROMOTING BIODIVERSITY

Biodiversity on around 1,500 hectares of nature rejuvenation areas away from roads is naturally very high. However, there is also potential for nature conservation enhancement in the 3,300 hectares of meadow areas of the roadside greenery and in the 5,100 hectares of woodland and wooded areas. Particularly in intensively used landscapes, these areas represent an important biotope network. Here we will take further measures to connect habitats and enhance them in terms of biodiversity.

Currently, around 80 hectares of meadows of the roadside greenery, which were selected under aspects of animal welfare and road safety, are already being extensively managed. This promotes flowering areas for insects and co. Measures to promote biodiversity are also implemented within the framework of collaboration with nature conservation organisations.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to plant at least 50 percent of the public green spaces along transport routes – where this is reasonably possible without impairing their function – with native, site-appropriate and climate change-resistant plants.

ASFINAG MEASURES TO ACHIEVE TARGETS

- ASFINAG will put all wooded areas that fulfil the requirements of an eco-forest out of use as eco-forest areas.
- Investigation of alternative conservation options to support biodiversity
- Selection and conversion of open land areas to flowering areas
- Implementation of a monitoring programme for all forest areas to identify and implement measures to promote biodiversity
- Performance of the recurring tree inspection
- Implementation and roll-out of the biodiversity register (green space register, neophyte register, tree register, habitat networking, etc.)
- Promotion of innovations to increase the biodiversity rate



| FOCUS 3: SPECIAL PROMOTION OF FLOWER-POLLINATING INSECTS

Flower-visiting insects are indispensable for the pollination of wild and cultivated plants. In this way, they maintain plant diversity and agricultural yields. However, numerous species are considered endangered. To make an important contribution towards conservation, we are already using our available rejuvenation areas to establish biotopes for flower-visiting insects, and have also already erected our first beehives along the A&S network.

We see a further potential of our rejuvenation areas in increasing biodiversity through autochthonous and regional planting of new and existing areas.

TARGETS TO BE MET BY 2030 ASFINAG's goal is to increase the number of bee sites established on its own land from the current 50 ASFINAG bee sites to 250 as part of the "Bee Highway – Bee Happy" project, thus creating a home for around 15 million bees.

ASFINAG's goal is to use 100 percent native plant species for greening and planting measures in new construction projects. Plants and seeds are sourced regionally, subject to availability.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Selection and consideration of suitable locations for the positioning of beehives
- 📍 Evaluation and implementation of measures, such as the introduction of special seed mixtures, to promote flower-visiting insects
- 📍 Creation of a guide for autochthonous greening and planting for employees



FOCUS 4: RAISING AWARENESS AND COLLABORATION

The implementation of biodiversity measures requires informed and sensitised employees. A training cycle on green space management has already been in place since 2018. This concept is to be expanded in order to train all employees on the topic of biodiversity and ASFINAG's contributions in this regard.

Through collaborations with, for example, the Austrian Nature and Biodiversity Conservation Union and the Austrian Federal Forests, we are trying to jointly develop and implement ways to promote biodiversity at ASFINAG.

In addition, we will initiate a contribution towards the "GEO Day of Biodiversity", which the renowned science magazine first called for in 1999.

TARGETS TO BE MET BY 2030

ASFINAG's goal is to increase awareness of biodiversity among employees for whom this topic is relevant within the context of their daily work.

ASFINAG MEASURES TO ACHIEVE TARGETS

- 📍 Elaboration and implementation of possibilities to promote biodiversity
- 📍 Organisation of the first "ASFINAG Biodiversity Day" to examine biodiversity on areas along the A&S network with renowned experts and to evaluate possible further measures to promote biodiversity
- 📍 Integration of biodiversity training into ASFINAG's internal training catalogue
- 📍 Annual planning and implementation of collaborations to promote biodiversity

ASFINAG CORE TEAM
SUSTAINABILITY, GREENING AND CLIMATE PROTECTION



Please direct any questions or suggestions regarding this programme to ASFINAG's sustainability, greening and climate protection strategy owner.

DI Ulli Vielhaber
Tel.: 050108 10014
E-Mail: ulli.vielhaber@asfinag.at

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